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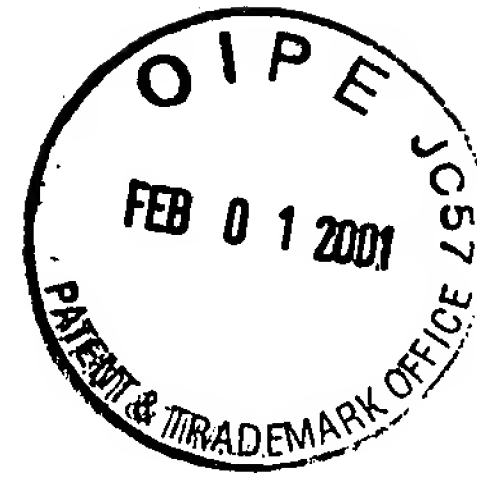
<110> Kwon, Byoung S.

<120> MURINE 4-1BB GENE

<130> 740.009US1

<140> US 08/012,269
<141> 1993-02-01

<150> US 07/922,996
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<150> US 07/267,572
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<160> 13

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<210> 1
<211> 2350
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<222> (1)...(2350)
<223> n = A,T,C or G

<400> 1
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tgtcctgtgc atgtgacatt tcgccatggg aaacaactgt tacaacgtgg tggtcattgt   180
gctgctgcta gtgggctgtg agaaggtggg agccgtgcag aactcctgtg ataactgtca   240
gcctggtact ttctgcagaa aatacaatcc agtctgcaag agctgccctc caagtacctt   300
ctccagcata ggtggacagc cgaactgtaa catctgcaga gtgtgtgcag gctatttcag   360
gttcaagaag ttttgctcct ctacccacaa cgcggagtgt gagtgcattg aaggattcca   420
ttgcttgggg ccacagtgca ccagatgtga aaaggactgc aggcctggcc aggagctaac   480
gaagcagggt tgcaaaacct gtagcttggg aacatttaat gaccagaacg gtactggcgt   540
ctgtcgaccc tggacgaact gctctctaga cggaaggtct gtgcttaaga ccgggaccac   600
ggagaaggac gtggtgtgtg accccctgt ggtgagcttc tctcccagta ccaccatttc   660
tgtgactcca gagggaggac caggagggca ctccttgcag gtccttacct tgttcctggc   720
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ggaccccacc atcctgtgga acagcacaag caaccccacc accctgttct tacacatcat  1020
cctagatgat gtgtgggcgc gcacctcatc caagtctctt ctaacgctaa catatttgtc  1080
tttacctttt ttaaatcttt ttttaaattt aaattttatg tgtgtgagtg ttttgcctgc  1140
ctgtatgcac acgtgtgtgt gtgtgtgtgt gtgacactcc tgatgcctga ggaggtcaga  1200
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tgatacgtag tatactgtat atgtgtatgt atatgtatat gtatatataa gactctttta  1440
ctgtcaaagt caacctagag tgtctggtta ccaggtcaat tttattggac attttacgtc  1500
acacacacac acacacacac acacacacgt ttatactacg tactgttatc ggtattctac  1560
gtcatataat gggatagggt aaaaggaaac caaagagtga gtgatattat tgtggaggtg  1620
```

```
acagactacc ccttctgggt acgtagggac agacctcctt cggactgtct aaaactcccc      1680
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ctttcgtaaa cggttcttac aaaagtaatt agttcttgct ttcagcctcc aagcttctgc      2160
tagtctatgg cagcatcaag gctggtattt gctacggctg accgctacgc cgccgcaata      2220
agggtactgg gcggcccgtc gaaggccctt tggtttcaga aacccaaggc cccctcata      2280
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atagttagac                                                           2350
```

<210> 2
<211> 256
<212> PRT
<213> Mus musculus

<400> 2

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Met Gly Asn Asn Cys Tyr Asn Val Val Val Ile Val Leu Leu Leu Val
  1               5                  10                  15
Gly Cys Glu Lys Val Gly Ala Val Gln Asn Ser Cys Asp Asn Cys Gln
             20                  25                  30
Pro Gly Thr Phe Cys Arg Lys Tyr Asn Pro Val Cys Lys Ser Cys Pro
          35                  40                  45
Pro Ser Thr Phe Ser Ser Ile Gly Gly Gln Pro Asn Cys Asn Ile Cys
       50                  55                  60
Arg Val Cys Ala Gly Tyr Phe Arg Phe Lys Lys Phe Cys Ser Ser Thr
 65                  70                  75                  80
His Asn Ala Glu Cys Glu Cys Ile Glu Gly Phe His Cys Leu Gly Pro
                85                  90                  95
Gln Cys Thr Arg Cys Glu Lys Asp Cys Arg Pro Gly Gln Glu Leu Thr
             100                 105                 110
Lys Gln Gly Cys Lys Thr Cys Ser Leu Gly Thr Phe Asn Asp Gln Asn
             115                 120                 125
Gly Thr Gly Val Cys Arg Pro Trp Thr Asn Cys Ser Leu Asp Gly Arg
          130                 135                 140
Ser Val Leu Lys Thr Gly Thr Thr Glu Lys Asp Val Val Cys Gly Pro
145                 150                 155                 160
Pro Val Val Ser Phe Ser Pro Ser Thr Thr Ile Ser Val Thr Pro Glu
                165                 170                 175
Gly Gly Pro Gly Gly His Ser Leu Gln Val Leu Thr Leu Phe Leu Ala
             180                 185                 190
Leu Thr Ser Ala Leu Leu Leu Ala Leu Ile Phe Ile Thr Leu Leu Phe
          195                 200                 205
Ser Val Leu Lys Trp Ile Arg Lys Lys Phe Pro His Ile Phe Lys Gln
       210                 215                 220
Pro Phe Lys Lys Thr Thr Gly Ala Ala Gln Glu Glu Asp Ala Cys Ser
225                 230                 235                 240
Cys Arg Cys Pro Gln Glu Glu Glu Gly Gly Gly Gly Gly Tyr Glu Leu
                245                 250                 255
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<210> 3
<211> 24
<212> PRT
<213> Mus musculus

2

```
<400> 3
Cys Arg Val Cys Ala Gly Tyr Phe Arg Phe Lys Lys Phe Cys Ser Ser
1               5                   10                  15
Thr His Asn Ala Glu Cys Glu Cys
            20


<210> 4
<211> 22
<212> PRT
<213> Drosophila

<400> 4
Cys Pro Val Cys Phe Asp Tyr Val Ile Leu Gln Cys Ser Ser Gly His
1               5                   10                  15
Leu Val Cys Val Ser Cys
            20


<210> 5
<211> 26
<212> PRT
<213> Dictyostelium

<400> 5
Cys Pro Ile Cys Phe Glu Phe Ile Tyr Lys Lys Gln Ile Tyr Gln Cys
1               5                   10                  15
Lys Ser Gly His His Ala Cys Lys Glu Cys
            20                  25


<210> 6
<211> 6
<212> PRT
<213> Mus musculus

<220>
<221> SITE
<222> (1)...(6)
<223> Xaa = Any Amino Acid

<400> 6
Val Gln Asn Ser Xaa Asp
1               5


<210> 7
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> An artificial peptide

<400> 7
Cys Arg Pro Gly Gln Glu Leu Thr Lys Ser Gly Tyr
1               5                   10


<210> 8
<211> 24
<212> PRT
<213> Artificial Sequence
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3

```
<220>
<223> A conserved pattern

<221> SITE
<222> (1)...(24)
<223> Xaa = Any Amino Acid

<400> 8
Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa
 1               5                   10                  15
Xaa His Xaa Xaa Xaa Cys Xaa Cys
            20

<210> 9
<211> 4
<212> PRT
<213> Mus musculus

<400> 9
Cys Arg Cys Pro
 1

<210> 10
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> A consensus sequence

<221> SITE
<222> (1)...(4)
<223> Xaa = Any Amino Acid

<400> 10
Cys Xaa Cys Pro
 1

<210> 11
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> A primer

<400> 11
acctcgaggt cctgtgcatg tgaca                                          25

<210> 12
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> A primer

<400> 12
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4

atgaattctt actgcaggag tgccc 25

<210> 13
<211> 11
<212> PRT
<213> Mus musculus

<400> 13
Cys Arg Pro Gly Gln Glu Leu Thr Lys Gln Gly
1   5   10